

**INFORMATIONAL  
CALENDAR ITEM  
C60**

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**STAFF REPORT ON THE MONITORING FOR  
POSSIBLE SUBSIDENCE AND SEISMIC HAZARDS,  
LONG BEACH UNIT, WILMINGTON OIL FIELD,  
LOS ANGELES COUNTY**

**PARTY:**

California State Lands Commission  
100 Howe Avenue, Suite 100-South  
Sacramento, CA 95825-8202

**BACKGROUND:**

The City of Long Beach conducts surveys twice each year, in May and November, for the purpose of monitoring changes in ground elevation of the Long Beach tidelands and adjacent areas. The Commission's staff reviews and interprets the benchmark elevation data from these semi-annual surveys. This report covers benchmarks surveyed in November 2001 and compares elevation changes that have occurred since completion of the previous survey in May 2001.

Surface elevation losses of up to 0.05 feet (0.6 inches) were observed in the central and western areas of the Wilmington Oil Field. These declines are the combined effect of changes in water injection rates, well realignments in the oil operations, and harbor redevelopment. Elevation losses slightly greater than 0.05 feet (0.6 inches) on Piers S and T are associated with Harbor redevelopments. Elevations on the eastern side of the Harbor (Piers C, D, G, F and J) remain stable. The localized elevation gain of up to 0.08 feet (0.9 inches) at Pier E is related to the unloading of slip fill during redevelopment.

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Elevation losses of up to 0.07 feet (0.8 inches) continued over the curtailed Tar steam flood adjacent to Henry Ford Avenue at the western end of the field. The steam flood, initiated in the 1980's, was terminated in 1999 because of negative surface elevation impact due to compaction of shales by the steam.

The Alamos Bay area and the oil islands remained stable. The Civic Center and Central City areas experienced localized elevation gains of up to 0.06 feet (0.8 inches)

The results of the next regular elevation survey, to be conducted in May 2002, will be reported to the Commission after the data have been received and analyzed by the Commission's staff.

No seismic event originated within the Long Beach Unit during the review period May 2001 to November 2001. The Commission's staff will continue to advise the Commission of any change in seismic activity in the vicinity of the Long Beach Unit.

**EXHIBIT:**

A. Location Map

**PERMIT STREAMLINING ACT DEADLINE:**

N/A